



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,894	09/12/2003	Thomas Matthew O'Brien	LL-002	6976
7590 C. William Merten 136 E. 76th Street Suite 8B New York, NY 10021			EXAMINER NICOLAS, FREDERICK C	
			ART UNIT	PAPER NUMBER
			3754	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/660,894

Applicant(s)

O'BRIEN ET AL.

Examiner

Frederick C. Nicolas

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-8, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 2, 4 and 9-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/8/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Preliminary Amendment***

1. The preliminary amendment filed to claims and the abstract on 1/14/2004 has been entered.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed subject matter in claims 3 and 4, line 1, "a controller" as well as the claimed limitation "a means for actuating said plurality of valves" as recited in lines 3-4 in claim 3 and in lines 4-5 in claim 4, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Art Unit: 3754

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 2,7-8 are objected to because of the following informalities: in claim 2, lines 2-3, "liquid" should be --said liquid-- to provide proper antecedent basis; in claim 7, line 4, "gas" should be --said gas-- to provide proper antecedent basis; in claim 8, line 3, "liquid" should be --said liquid-- to provide proper antecedent basis; in claim 8, line 1, "at least one" should be --said at least one-- to provide proper antecedent basis.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,5,7-8,18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Faure 4,189,943.

Faure discloses a device for the volumetric measurement and dispensing of liquids (col. 1, ll. 5-14), which comprises a variable volume chamber (C), a means for controllably adjusting the volume of the variable volume chamber (col. 5, ll. 9-16), a plurality of valves (1,2,2,4), at least one conduit (11) disposed between the variable volume chamber and at least one of the plurality of valves as seen in Figure 1, a means

Art Unit: 3754

for removing gas from a system formed by the variable volume chamber, the plurality of valves, and the at least one conduit (col. 4, ll. 33-47), whereby liquid aspirated into the system substantially fills the system thereby minimizing the difference between the volume of the aspirated liquid and the volume of the system (col. 3, ll. 58-68 onto col. 5, ll. 1-32).

The device shown by Faure will perform the method recited in claims 18-19 during normal operational use of the device.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faure 4,189,943 in view of Jones et al. 3,901,653.

Faure has taught all the features of the claimed invention except that a controller. Jones et al. teach the use of a controller (50), where the controller is in communication with a means for controllably adjusting a volume of a variable chamber (20) and a means for actuating a valve (37).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute Faure's electronic control with the controller (50) of Jones et al., in order to provide the proper timing of operation of the device according to

Art Unit: 3754

selected design parameters which depend upon the timing desired between various portions of a cycle of operation, as taught by Jones et al. in (col. 6, ll. 16-20).

Further, with respect to "a means for actuating said valves".

It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the means for actuating the valve of Faure and Jones et al., since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. As per MPEP 2144.04

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faure 4,189,943 in view of Gerich 5,127,547.

Faure has taught all the features of the claimed invention except that a means to create a seal between the piston and the cylinder. Gerich teaches the use of a means (44,46) to create a seal between a piston (32,34) and a cylinder (50) (col. 3, ll. 31-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Gerich's o-ring onto Faure's piston head as taught by Gerich in (col. 3, ll. 31-50), in order to provide a high pressure sealing engagement with the inner walls of the cylinder.

#### ***Allowable Subject Matter***

9. Claims 2,4,9-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

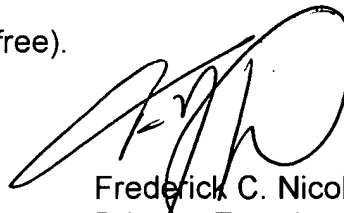
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mathis 6,036,668, Shimano 5,277,333, Snodgrass et al. 5,772,899, Anscherlik 3,718,438, Tisone 5,741,554, Florian 5,584,416 and Keyes et al. 5,680,960 disclose other types of device for volumetric measurement.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick C. Nicolas whose telephone number is (571)-272-4931. The examiner can normally be reached on Monday - Friday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Y. Mar, can be reached on 571-272-4906. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FN  
December 6, 2005

 12/6/05  
Frederick C. Nicolas  
Primary Examiner  
Art Unit 3754